New Problems for Old? Defining e-Governance

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Abstract

This paper explores the question of whether there are any material differences between e-governance and traditional concepts of governance? It proposes a definition of governance that differentiates between structural and normative governance and examines the influence of ICT on two examples of each of these. It argues that while ICT has little effect in some aspects of governance, it has a considerable impact in others and is likely to pose new challenges in the near future.

1. A Question of Meaning

“‘When I use a word,’ Humpty Dumpty said, in rather a scornful tone, ‘it means just what I choose it to mean - neither more nor less’” (Lewis Carroll – Alice Through the Looking Glass").

The past two decades have seen the emergence of a substantial academic industry based on putting the letter ‘e’ in front of various words (government, democracy, commerce, business, politics, warfare, etc.). An important question when prefixing any field with ‘e-’ is whether the impact of ICT is such as to change or improve the field in some fundamental way?

e-Governance’ is one such. This term has been in circulation for some time, but it has steadily gained traction in recent years. The term has been particularly widely used in India where it serves as a synonym for e-government [29] and this use is by no means restricted to that country. The confounding of e-government and e-governance is unfortunate. There is a strong case to be made that e-governance is quite distinct from e-government and that this distinction is useful to both academics and practitioners. This primary purpose of this paper is to make the argument for this distinction and to offer a definition of e-governance which can provide a solid foundation for further discussion of, and research into, this concept.

In order to do this a number of aspects of governance, e-government and e-governance will be explored. If e-governance is to have real meaning, as opposed to just being another alternative term for e-government, then it is necessary to make three clear differentiations. First it is necessary to distinguish between e-government and e-governance. Having made this distinction, it is necessary to differentiate between governance and e-governance. Thirdly there is a need to draw a distinction between e-government and e-democracy as these two terms are often blurred.

In short, it is possible to define a separate field of research and study called e-governance and if so what makes it distinct from the other three fields in figure 1?

Figure 1: Relationship between different fields

Part of the motivation for asking this question is a concern over the use of language to mask a lack of underlying change. There are two forces at work here. The ICT industry has a tradition of re-labeling technologies, often for marketing reasons [2]. Combine this with politicians’ aptitude for ‘spin’ and the result is considerable elasticity in the use of language. In practice there is limited evidence to date that ICT of itself has engendered any fundamental change in the nature of government or in the nature of democracy as Scholl [46] puts it, change is ICT enabled, but not ICT driven. Others dispute this (e.g. [49]). Ho [16] claims that there have been material changes in US local government brought about by technology. Nonetheless we may now be at a what Kurtzweil [24] calls a ‘knee
point', a point where the nature of problem changes direction. It is possible that in the future developments in ICT will force polities to confront new questions of governance, not just from so-called e-government 2.0 bottom up developments, but from a need to respond to potentially radicalizing technological forces.

2. Defining Governance

"Governance" is a problematic term. A major contributory factor to this is that there is no agreed definition of the word. Many articles on the subject fail to define it and those definitions that do often differ significantly. The following is just a selection of definitions that have been put forward:

- “The traditions and institutions by which authority in a country is exercised” [50].
- “The system and manner of providing authority and control” [21];
- “Governance is about how local public bodies and partnerships ensure that they are doing the right things, in the right way, for the right people in a timely inclusive, open, honest and accountable manner.” [9]
- “... the procedures associated with the decision making, performance and control of organisations, with providing structures to give overall direction to the organisation and to satisfy expectations of accountability to those outside it.” [17]

The International Institute of Administrative Sciences [22], has its own lengthy definition which includes:

- “Governance refers to the process whereby elements in society wield power and authority, and influence and enact policies and decisions concerning public life, and economic and social development.”

The IIAS also asserts that governance has “no automatic normative connotation”.

It is clear that the above definitions are quite different. In general, definitions of governance, if not actually incompatible, are often long way apart. Rhodes ([41], p15) observes that: “[governance] has too many meanings to be useful”, whilst Peterson ([38], p8) notes that the rich vocabulary emerging from the literature on governance “...is like a terminological jungle in which any newcomer plants a seed”.

Addressing this problem, Bovaird and Löffler [8] suggest that amongst this diversity of definitions there are common elements. These include:

- An acceptance that in modern public governance there are many stakeholders other than governments;
- That governance deals both with the rules, formal and informal, that govern society and with the processes of negotiation whereby these rules are interpreted and modified;
- That there are different forms of governance from markets to hierarchies and that different mechanisms are appropriate in different circumstances.

Whilst embracing these common themes, any book, article or paper on governance needs to start by stating clearly which of the many possible definitions of governance it uses. The definition which will be used here is set out in Section 4.

3. Government and Governance

An important matter to get straight at the outset of any discussion on this subject is the distinction between government and governance. If these are considered to be the same thing, it follows that there is likely to be little difference between their electronic equivalents. A good answer to the question, what is the difference, is provided by Löffler [26]. She cites Pierre and Peters [39] asking “Does government still matter?” and responds that this question is misguided because it misses the point. Instead, she suggests, the question should be “When does government matter?”. Löffler points out that in a modern networked state, public governance can take many forms which may or may not involve the government as such. For example, governance might come from within the community or be provided by the market. Kim et al [22] make a similar point, saying that the understanding of governance as the act of governing has been replaced with a model of government as an actor in the process of governance. Scharpf [45] argues that, in certain contexts, governments are not even necessarily the central players in governance. In this context, the comment by Held et al [15, p447] that in modern societies,

“...effective power is shared, bartered and struggled over by diverse forces and agencies at national, regional and global levels”
reflects the reality that governance is not even a matter internal to the state, but is affected by external stakeholders and forces. The international bond markets are a contemporary example. Another way of viewing the relationship between government and governance is to consider that in many western countries at least, public administration has steadily migrated from the former to the latter.

This distinction is important in what follows. For if governance without the ‘e-’ comprises many stakeholders, the addition of ICT to the mix brings with it something which can change the possibilities for interaction, the nature of communication and the balance of power between, and even the number of, stakeholders. With these ideas in mind, the question of defining governance can now be considered.

4. Governance: A Working Definition

Two questions immediately present themselves at this stage: which of the multiple definitions of governance one adopts or at least starts from and whether the selected definition should be normative?

It is easiest to start with the second of these. The IIAS definition notes that governance has no automatic normative connotation, but implies that many definitions are normative anyway. Concepts such as accountability and transparency are normative by definition as both imply the need for scrutiny and scrutiny is only necessary if there are desired forms of behavior that need to be policed. One way to avoid this problem is to define governance as having two dimensions: structural and normative. Structural governance, is the ‘how’ of government. It encompasses things such as processes, structures, lines of authority, stakeholders, forms of communication and responsibilities – the mechanisms by which power is exercised, decisions made, policy is created or changed and its implementation achieved. Normative governance is the set of value-related features of governance including transparency, accountability, integrity, honesty, impartiality, efficiency and so on. Structural governance may be designed to support or achieve normative aims, but in itself it is about how something is done, not about whether or not the way it is done is efficient (or honest or fair). This division as some parallels with the distinction between definitions of governance and definitions of ‘good governance’ discussed by Löffler [26].

This split definition is ideologically agnostic. The concept of structural governance is neither restricted to public administration nor to democracies. Fear of arbitrary arrest may not be an attractive form of governance, but it is still a form of structural governance. The concept of value-related or normative governance reflects the principles of the underlying political system and its public values.

5. Defining e-Governance

Just as there are many definitions of governance, there are many definitions of e-governance. That these do not always run parallel the definitions of governance without the ‘e-’ adds to the confusion. The following are some examples.

Oakley [36] considers e-governance to be a technology mediated service that facilitates a transformation in the relationship between government and citizen. Pina et al [40] suggest that e-governance includes e-government. Saxena [44], reviewing a number of definitions ([6], [18], [33]) concludes that it is an information age model of governance. Saxena cites Riley [42] as stating that e-governance is the commitment to utilize appropriate technology for a variety of ends including greater democracy and fair and efficient services. UNESCO [52] defines e-governance covering a range of functions from improving services to empowering citizens. Palvia and Sharma [37] suggest a framework for e-government versus e-governance. In their model, e-government is concerned with internally focused use of ICT to manage organizational resources and administer policies and procedures. Sheridan and Riley [48] suggest that e-governance “…deals with the whole spectrum of the relationship and networks within government regarding the usage and application of ICTs.” Chen and Hsish [10] adopt a definition from the United Nations, namely the use of ICT to improve the quality of services and governance (a fairly flexible definition). Kolsaker and Lee-Kelley [23], drawing on Heeks [14] and Lenihan [25] discuss e-governance as if it were an aspect of, if not actually synonymous with, e-democracy. In a similar vein, Marche and McIver (2003, p75) suggest that:

“e-Governance is a technology-mediated relationship between citizens and their governments from the perspective of potential electronic deliberation over civic communication, over policy evolution and in democratic expressions of citizen will.”

Dawes [11, p86] take a panoramic view of e-governance as encompassing just about every aspect of ICT in government and e-democracy.
“E-Governance comprises the use of information and communication technologies (ICTs) to support public services, government administration, democratic processes, and relationships among citizens, civil society, the private sector and the state.”

It is worth summarizing some of these definitions. In the above examples, e-governance is variously defined as:

- Technology mediated services;
- Something that includes e-government;
- A model of government;
- A commitment to technology;
- Functions that empower citizens;
- Internally focused use of ICT by government;
- About networks and relationships;
- Use of ICT to improve the quality services and governance;
- Something that enhances e-democracy;
- A technology-mediated relationship between citizen and state.

Clearly there are some shared threads here and, like Bovaird and Löffler, one could draw out a few points on which there is consensus, e.g. that e-governance involves technology. But from the point of view of scholarship and creating of a defined field of research, this profusion of definitions is untidy and unhelpful. Such a variety of interpretations does not provide the basis for a coherent field of scholarship.

5.1. Structures

Does reframing the definition of governance in terms of structural and normative help? A starting point is to ask whether ICT changes structural governance? One of the business fads of the late 1980s and early to mid 1990s was business process re-engineering (BPR). BPR enjoyed a period of considerable popularity in the public sector [28], [47] According to some scholars, ICT was in part the driver and in part the enabler of this change [35] although as noted others have questioned the former role.

In parallel with BPR, ideas in business governance evolved with the concepts of hierarchical, market and intermediate governance [5]. All of these ideas had public sector parallels. The ideas of de-layer and downsizing were features of new public management (NPM) [20] and the idea of government as networks has been a common theme in the public administration literature for several years [41]; [13], [43]. However the process of what Rhodes calls the ‘hollowing out’ of government was well underway long before the Internet came into widespread use. Modern governments encompass a vast array of institutions from the central ministries of state though regional and local government and agencies (over 800 of the latter in Ireland [12] and a claim of over 5,500 in the UK by the early 1990s [53]. While technology has certainly facilitated some of these changes, there is no evidence that any changes in structure were technology-driven or that until relatively recently at least, technology per se enabled structures to be created that would not otherwise have been possible.

In parallel, new forms of e-democratic and consultative governance have emerged, particularly in local and municipal government as new structures and processes have been set up to take advantage of the possibilities for electronically-mediated consultation. Torres et al [51] discuss such developments in a number of European cities; there are numerous other examples around the world. It is not clear to what extent these changes will spread or even survive once the first flush of enthusiasm has passed. The jury is still out on this first phase of e-democracy [27].

In summary, ICT enables or at least facilitates certain forms of structural change. However to call this e-governance is often misleading as there is nothing fundamental about most of these structures that is electronic. One the other hand, there are forms of structural change, such as social networks, on-line communities, Web 2.0 initiatives and virtual worlds where genuinely new forms of governance which could legitimately be called e-governance are emerging. It is these latter that constitute the real core of e-governance. Why this is so can be seen by considering a number of examples.

5.2. Processes

An interesting question to ask about e-processes is in what essential manner these are new or at least different from their manual predecessors? The answer, in most cases, is that they are not. For example, Ireland now has a well designed, easy to use on-line vehicle taxation system. Underneath, this is quite a complex system which integrates a lot of hitherto unintegrated subsystems, but from a citizen and a governance perspective the essence of the process remains unchanged. The same documents are required, only now the state can obtain these electronically without the citizen having to provide them in physical form. No new services are offered nor are any new flexibilities or features provided. The law has not been changed. Whilst some might claim that this is a form of e-governance, it is conceptually no different from the old
illustrating what governance means. Structurally, there are three/four state organisations/groups involved including the local authorities, planning departments, councils and the Planning (Appeals) Board. There are several other stakeholders including the applicant, the objectors, the planners, public representatives and the wider citizenry.

The problem of e-governance and process can be further illustrated by considering a common example of a process: applying for planning permission. In Ireland, twenty years ago, a citizen who wished to put up a building or modify an existing one would apply to his or her local authority for permission to do so. To do this, she had to obtain a form, complete it and submit it along with required supporting documentation (such as architect’s drawings and statements of regulatory compliance) and the application fee to the local authority’s planning department. She was also legally required to put a notice of the application in a national newspaper and arrange for the display of a publicly visible copy of the application notice at the property.

There followed a five week period during which other citizens (or organizations including the state) could make observations about, or lodge objections to, the application. A citizen could also go to the planning section of the local authority and ask to see the file of all current planning applications and inspect all of the documentation provided with a given application. Objections had to be delivered by hand to the planning office and a paper receipt was issued. At the end of the five weeks, the professional planners would review the application and comments/objections (if any) in the light of current regulations and planning guidelines. Based on any submissions they received, the planners would make a decision and either reject the application or forward it to the Council, i.e. the politicians, for approval. Approval was normally automatic, but the Council had the right to alter or overrule the planners’ decision or advice. Objectors could and frequently did lobby councilors directly to get them to reject or deviate from the planners’ recommendations. Once a decision was ratified, it was communicated to both the applicant and objectors (if any). If either the applicant or any objector disagreed with the decision, they could make an appeal to the Planning Board. At this point, interested parties could make certain additional submissions, but not change either the basis of the plan or the objection. The planning board is an unelected, but independent, government appointed body and has its own independent group of planning advisors. The board would, in due course, issue a final decision. While this decision could in theory be appealed to the courts, in practice this was the end of the process.

The planning process is a useful example for illustrating what governance means. Structurally, there

non-electronic version. This system may, therefore, accurately be described as e-government, but to describe it as e-governance is to imply that something in governance has altered which is not the case.

Finally, there is a clear process for which it is worth setting out the key steps:

1. The applicant must inform the planners and the community about his application;
2. The planners must make all relevant information available to all interested citizens;
3. Other citizens can express their views to the planners and object if they wish;
4. The planners are required to take account of all views submitted as well as the law and planning guidelines;
5. The planning professionals make a decision and recommendation;
6. The Council approves, modifies or rejects this recommendation;
7. There is an appeal process to an independent authority which makes a binding decision.

Over the past two decades substantial parts of this, including lodging applications and objections, making payments and searching for applications and have been put on line. Is this e-governance? It is proposed that the answer to this question is ‘no’ for the simple reason that nothing in the above analysis of stakeholders or process has been altered by putting parts of the process on-line. What, then, would it take to change the nature of governance in the planning process?

To see how this might happen, suppose that central government decides that the local planning system is too erratic and/or corrupt. Decisions are not consistent, councilors are being bribed and planners subjected to political pressures. It therefore decides that the system will be completely rule driven. Such a process can then be automated and a computer system is developed to decide on all planning matters. This is a change of governance as the planners and councilors have now been removed from the process (applicants and objectors remain). In this instance, the term e-governance would be appropriate as a large part of the process of governance is now automated and decision making has been taken out of the hands of the humans. There is now a material change in governance and this can be said to be a form of e-governance. A number of stakeholders have been eliminated and the ability to bend or adjust the rules has been lost. In a sense, the computer has become part of the network.
One cannot, of course, generalise from a single case or even two cases, but the above discussion provides a good illustration of distinction between government and governance. Government is about the ‘doing’ and ICT can often simplify and improve this. Governance is about the abstract structure of what is happening and changing this is quite different.

6. Normative e-Governance

Turning to normative governance, two critical forms of this are now examined.

6.1. Accountability

Accountability is a cornerstone of governance. The evolution of networked governance has created major problems for accountability. In a hierarchy it is relatively straightforward to establish accountability. In a network, accountability can become elusive as there may be no one place with overall or ultimate responsibility for what is happening [32]. But whatever the structure, that ICT plays a direct role in accountability is not obvious. To illustrate why, consider another hypothetical case.

In Ireland, there is a current policy debate about whether young Muslim women should be allowed to wear headscarves in second level (high) schools. At the time of writing, the Irish Ministry of Education and Skills has no policy on this, the decision is left to individual schools. There is growing pressure from school principals to have a single, national policy. Let us suppose that the minister asks a civil servant to make a policy recommendation on this matter. The civil servant does some research into the historical and religious background and into practice elsewhere. He then compiles a report in which he recommends a policy of secularization, i.e. that no religious symbols of any sort should be worn in schools. This policy, he argues, is neutral and does not discriminate against any religion. It is also simple and unambiguous. The minister accepts this advice and proposes legislation to the parliament where it leads to a heated debate. A subcommittee of parliament is established to consider the proposed legislation in depth. Should the civil servant be required to come before this committee and justify his recommendation?

Consider now the factors involved in this question of whether the civil servant should face the committee (the accountability rights and wrongs of this are not relevant to this discussion). In approximate order of importance these are the law, politics, power, individual psychology, organisational psychology, due process and mechanics. The mechanics, or how the civil servant accounts for his actions, may involve ICT. Its primary impact in this instance may, perhaps, be to make the proceedings of the committee more widely available through broadcasting. However ICT \textit{per se} has virtually no bearing on the fundamental issue.

Accountability is essentially a human phenomenon, people being answerable to other people. It is hard to see at a conceptual level what role technology might play other than the convenient one of being something to blame when things go wrong.

6.2. Transparency

In a book they edited a few years ago, Hood and Heald [19] chose the title: “\textit{Transparency: The key to better governance?}”. Perhaps the area where ICT, in its broadest sense, has had the most impact on normative governance is in its impact on transparency.

One aspect of transparency that has been much discussed is the ability of a citizen to follow a public administration process or procedure. Governments and administrative machinery can be complicated, but many scholars and others have suggested that the technology could be used to enable the citizen to see where they are in the system. Thus the farmer applying for a support grant or a business seeking a licence to sell alcohol should be able to track where that application is in the process. One country that has done this is South Korea, which implemented a system called OPEN in 2003 [54]. With this system, a citizen can track the progress of an application or a service request through the system. The OPEN system raises several interesting questions, which are discussed by Meijer [30]. Amongst these are the ability of the system to show all of the relevant information, the ability of the citizen to understand what is going on (most citizens are not expert in government processes) and the impact on the civil servants. The OPEN system is a clear example of normative e-governance not least because without technology, such a form of transparency is not possible.

In certain circumstances, transparency can be used to substitute information for regulation. Governments have long sought to use information and market forces to achieve social goals by the use of things like league tables and public ratings (e.g. for schools or hospitals) or health warnings (e.g. on cigarette packets).
Inasmuch as this strategy is ICT dependent, this could also be said to be a form of e-governance.

Transparency and the provision of information is a significant development in governance in that it creates new possibilities for transferring governance into the community by process visibility and by information rather than by regulation. It is therefore reasonable to claim that it is normative e-governance (even if transparency is not an unmitigated good O’Neill [34]) While this type of public scrutiny of process and the substitution of information for regulation has, therefore, both positive and negative aspects, it can be seen as quite a different form of governance.

7. Other New Forms of Governance

Apart from in a few areas like transparency, could genuinely new forms of governance emerge from technology? Two possibilities are forms virtual government [3], [7] and e-Government 2.0. Both of these will be briefly considered.

7.1. Virtual Government

One of the most misused terms in information systems is the ‘virtual organisation’. By this is usually meant an organisation that does not have an office or building, but where real people communicate electronically from wherever they are. Technology may, however, be taking us in the direction of the genuinely virtual organisation, i.e. one that exists only in the memory and circuitry of machines or the cloud. It is possible to envisage much government activity being transferred to machines. One example (planning) has already been outlined. Why use expensive policemen to operate speed traps or check that cars are taxed when cameras and computers can do this automatically? Why not measure school attendance with RFID scanners? Numerous day-to-day tasks of government can be automated. There are systems in prototype today which can monitor our health, even as we walk around the house (Baker 2008).

Developments in artificial intelligence could have even more profound long term consequences. At certain low levels, machines are now starting to be deployed for activities that were heretofore done by humans. This technology is already in extensive use in the private sector for such applications as directory enquiries, order entry, help desks and airline booking. With contemporary technology, many low-level government activities which require a verbal exchange and which are currently performed by humans could be carried out by machines. It is not a large leap to imagine that such functions could include basic decision-making. The rationale for electronic governance of this type is powerful, especially where the three Es of efficiency, economy and effectiveness are dominant values.

The potential impact of such developments are as yet largely unexplored. In such a world, e-governance would take on a substantive and quite distinct meaning. e-Governance would encompass not only the use of advanced technologies for public and social management and control, but for consultation and participation. The problem with much democracy is being heard. Politicians can either listen to one constituent at a time or read the opinion polls. Technology is currently being used in innovative forms of public consultation, but current tools rapidly run into logistical limitations as the more evangelical advocates of direct democracy have discovered. In the future, there may be options for use of technology to overcome at least some of these limitations, but in so doing, there is a risk of e-democracy degenerating into machines talking to other machines. Over the next few decades, and probably well beyond, technology is going to present polities and societies with enormous and unfamiliar challenges of governance. e-Governance will be about how polities address these challenges.

7.2. e-Government 2.0

e-Government 2.0 envisages new forms of governance that are bottom up. A good account of this vision is provided by Millard [31]. He describes this a use of tools such as social networking, blogs, wikis, mashups and so on to create not only new forms of governance, but new services generated from within communities themselves rather than being provided by the state. This vision has all the usual good words attached: open, participative, engaging, empowering, personalised, etc., but there are practical examples in existence. One is Fixmystreet.com. Here citizens can report problems in the urban landscape to their local authority. They can take a picture of a broken traffic light or cracked pavement and mail these to the council and put it up on a web site which shows when it was reported and how long it is taking the authorities to repair it. This is genuine e-governance, using technology to change the form of governance both in terms of reporting, pressuring the authority to respond and engaging potentially all citizens in the maintenance of the fabric of their community. Millard sees use of mobile and mashup technology to enable citizens to redesign the parks they walk in or indicate where an accident has occurred. He calls this location-based
participation. Such activities, if realised (and there are questions here – people may have different views on park redesign!) would also represent a new form of governance, a genuine form of citizen empowerment not possible before the mobile/Internet age. Such an all enveloping form of “everyday e-government” can be considered as another form of genuine e-governance.

8. Conclusion

Clarity in terminology is important not just to academics. It is also important for politicians and others engaged in the development of public policy on the use of ICT in government. Changes in government arising from ICT have different implications from changes in governance arising from ICT. If the term e-governance is to be useful, it is important both to differentiate it from e-government and to distinguish it from traditional governance and e-democracy. There has always been a modest part of the e-government literature which has been concerned with the impact of ICT on the ‘how’ of government itself. The study of the impact of ICT on the how of government has been termed ‘deep e-government’ [1]. It is possible that e-governance is a synonym for this or for certain aspects of e-democracy. It is also possible that there are aspects of the use of technology in government that really do create new governance forms and questions. The difficulty is the ambivalence (or more accurately multivalence) of the meaning(s) of e-governance. Earlier in this paper Rhodes observation that ‘governance’ is so variously defined as to be useless as a word was noted. The problem with e-governance is not quite identical, but the effect is much the same. Each author or scholar has to set out his or her definition first and proceed from there. Many scholars and commentators do not even bother with a definition and the result is a type of semantic anarchy which only serves to confuse.

This paper proposes working definition of governance as ‘how’ of government and divides this into structural and normative dimensions. Based on these it has been argued that:

- There is limited evidence that ICT has transformed many existing processes other than in the sense of improving their efficiency and/or ease of use;
- In terms of new forms of governance, some processes have been transformed and some new ICT enabled processes have emerged. How durable some of the latter will prove to be remains to be seen;
- There are areas of normative governance where there is no reason to believe that ICT will have anything other than a marginal impact. Accountability is one example;
- There are other areas of normative e-governance where ICT has had and is likely to have an increasing impact. Transparency is a good example;
- A possible heuristic for determining whether something is e-governance is to ask the question: does the presence of ICT result in any material change in structures, data or processes? If the answer is ‘no’, then to describe it as e-governance is not meaningful.
- There are emerging developments in the use of ICT in government and social control which raise genuinely new problems or reify hitherto theoretical problems in governance.

It is the last of these that is the most interesting and is likely to provide the greatest challenge to society in the medium term. We are are entering the age of ubiquitous computing and may be moving into the age of cloud computing and while artificial intelligence is too broad a church to generalize about easily, the automation of tasks requiring mental as opposed to merely physical skill is steadily progressing. The conflict between technical and human rationality is not new, but it may be about to take on a new dimension.

In this context, it is important to have a clear understanding of what is meant by e-governance and what new challenges it creates. Currently there is a lack of such clarity which only serves to distract attention from matters which may be of great importance for future generations and societies. This paper has attempted to highlight some of these issues, but there is much more research and thought needed.

9. References


[22] International Institute of Administrative Sciences (IIAS), A draft composite definition by the IIAS Working Group, IIAS Brussels”, 14th June, 2009.


